

PRIMARY USE: Minimize bank erosion.

ADDITIONAL USES: Improve water quality, keep wildlife corridors intact, and enhance aesthetics through the establishment of vegetation.

RIPARIAN FOREST BUFFER

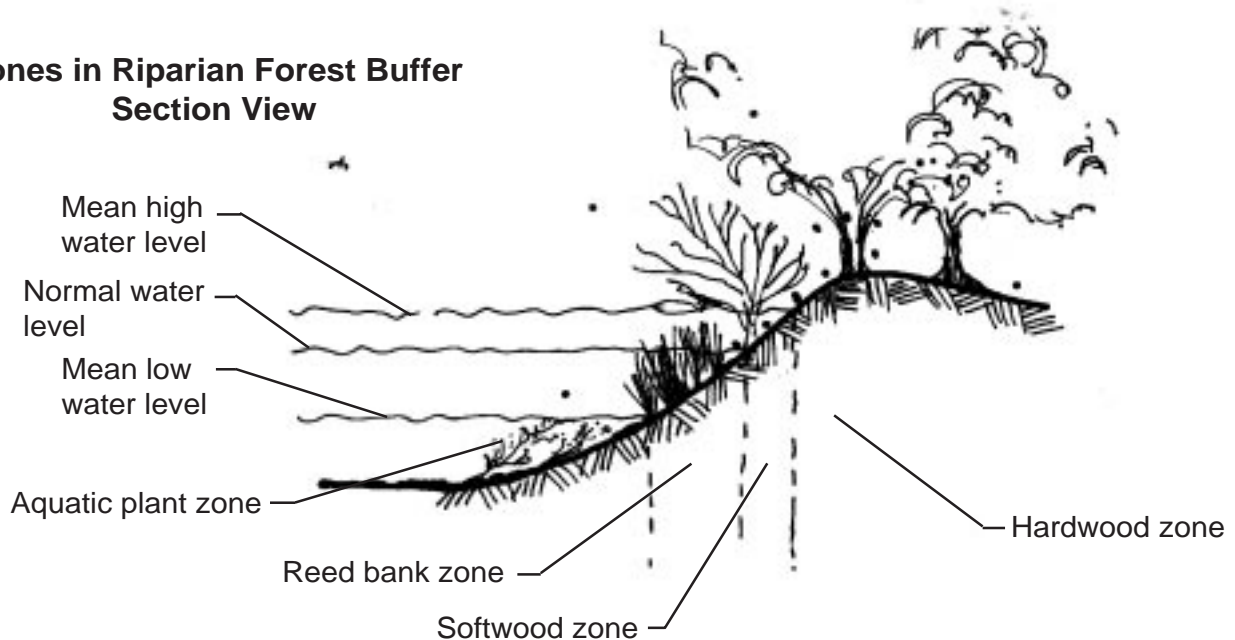
What is it? A riparian forest buffer is an area of trees and/or shrubs located adjacent to and up-gradient from water bodies and water courses. The location, layout, width, length and woody plant density are designed to accomplish a specific purpose and function.

Purpose

Riparian forest buffers are used to:

- 1) Create shade to lower water temperatures to improve habitat for fish and other aquatic organisms.
- 2) Provide a source of detritus and large woody debris for fish and other aquatic organisms.
- 3) Provide wildlife corridors.
- 4) Reduce excess amounts of sediment, organic material, nutrients, and pesticides and other pollutants in surface runoff and reduce excess nutrients and other chemicals in shallow ground water flow.

Zones in Riparian Forest Buffer Section View



Limitations

Not all sites will support vegetation because of toxic soil conditions or insufficient soil moisture. Erosion must be controlled up-gradient from the corridor before vegetation can be successfully established.

Materials

Locally native plant species are required. Plantings ordinarily consist of two or more species with individual plants suited to the seasonal variation of soil moisture in individual planting sites. Shade tolerance and compatibility in growth rates must also be considered when planting several species.

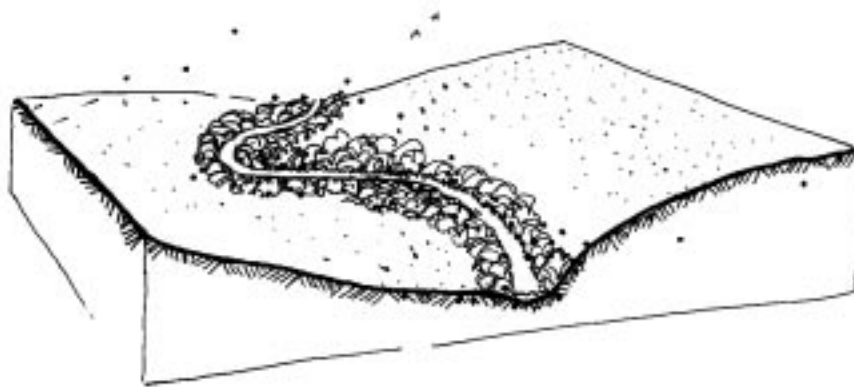
Installation

Create a zone to provide detritus and shade that begins at the normal waterline and extends at least 15 ft (4.6 m). Beginning at the upper edge of the hardwood zone, create a zone 20 ft (6 m) wide or more which serves to reduce excess amounts of sediment, nutrients, and other pollutants entering the water. To provide an adequate supply of large woody debris, the mature height of the dominant species should be the minimum width of the zone, usually around 75 to 150 ft (23 to 46 m). Confirm this width figure with local species. The suggested minimum width to provide habitat for wildlife is 100 to 200 ft (30 to 60 m).

Source: Stream Corridor Restoration Handbook, USDA.

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Additional Drawings:



**Riparian Forest Buffer
Perspective View**

Note: Streamside vegetation to lower water temperatures, provide a source of detritus and large woody debris, improve habitat, and reduce sediment, organic material, nutrients, pesticides, and other pollutants migrating to the stream.